CLAIMS

What is claimed is:

1. A method for operating a robot in an automatic material handling system (AMHS), said method comprising:

indicating a token to a first port, wherein said token pre-sets a first job item of said first port to be processed;

processing a second job item with said robot while said second job item locates in a different section to said first job item but in a same section to said robot and of waiting for being processed to a same section to said first job item;

processing said first job item with said robot; and

moving said token off from said first port.

2. The method according to claim 1, wherein said second job item is a corresponding job item of a second port differing from said first port.

3. The method according to claim 1, wherein said second job item is processed by said robot while said first job item exists.

4. The method according to claim 1, wherein said second job item includes an empty job item.

5. A computer-readable medium encoded with computer program code for operating a robot in an automatic material handling system (AMHS), the program code causing a computer to execute a method comprising:

indicating a token to a first port, wherein said token pre-sets a first job item of said first port to be processed;

processing a second job item with said robot while said second job item locates in a different section to said first job item but in a same section to said robot and of waiting for being processed to a same section to said first job item;

processing said first job item with said robot; and

moving said token off from said first port.

6. The medium according to claim 5, wherein said second job item is a corresponding job item of a second port differing from said first port.

7. The medium according to claim 5, wherein said second job item is processed by said robot while said first job item exists.

8. The medium according to claim 5, wherein said second job item includes an empty job item.

9. A robot operating system of a automatic material handling

system, comprising:

a plurality of ports;

a token cycling among said plurality of ports to indicate one of said plurality of ports as a predetermined priority port; and

a robot moving among said plurality of ports to process a plurality of corresponding job items of said plurality of ports;

wherein, while said robot locates in a different section to a corresponding priority job item of said predetermined priority port, said robot processes a corresponding job item of a port being in a same section to said robot before processing said corresponding priority job item of said predetermined priority port.

10. The system according to claim 9, wherein said plurality of ports includes locating in a plurality of floors.

11. The system according to claim 10, wherein said robot includes moving among said plurality of floors to process said plurality of job items.

12. The system according to claim 9, wherein said port differs from said predetermined priority port.

13. The system according to claim 9, wherein said token cycles among said plurality of ports according to their predetermined priority

from high to low.

14. The system according to claim 9, wherein said corresponding priority job item is a first received job item in said predetermined priority port.

15. The system according to claim 9, wherein said corresponding job item is a first received job item in said port.

16. The system according to claim 9, wherein said corresponding job item is processed by said robot while said corresponding priority job item exists.

17. The medium according to claim 5, wherein said corresponding job item includes an empty job item.